



THE GLOBE PROGRAM

EUROPEAN PHENOLOGY CAMPAIGN WEBINAR

Exploring the 2024 Autumn Tree Campaign

Introduction to the Autumn Tree
Campaign plans and activities.

Lenka Kleger, Europe and Eurasia RCO
23 September 2024



Picture by Dječji vrtić Trnsko, Croatia

WHAT IS PHENOLOGY?

- Response of living organisms' to seasonal changes in the environment - animals and **plants**



- One of the oldest areas of environmental science
- Phenological **data are important** for various aspects of our life
- Way, how to **prove and study climate change**

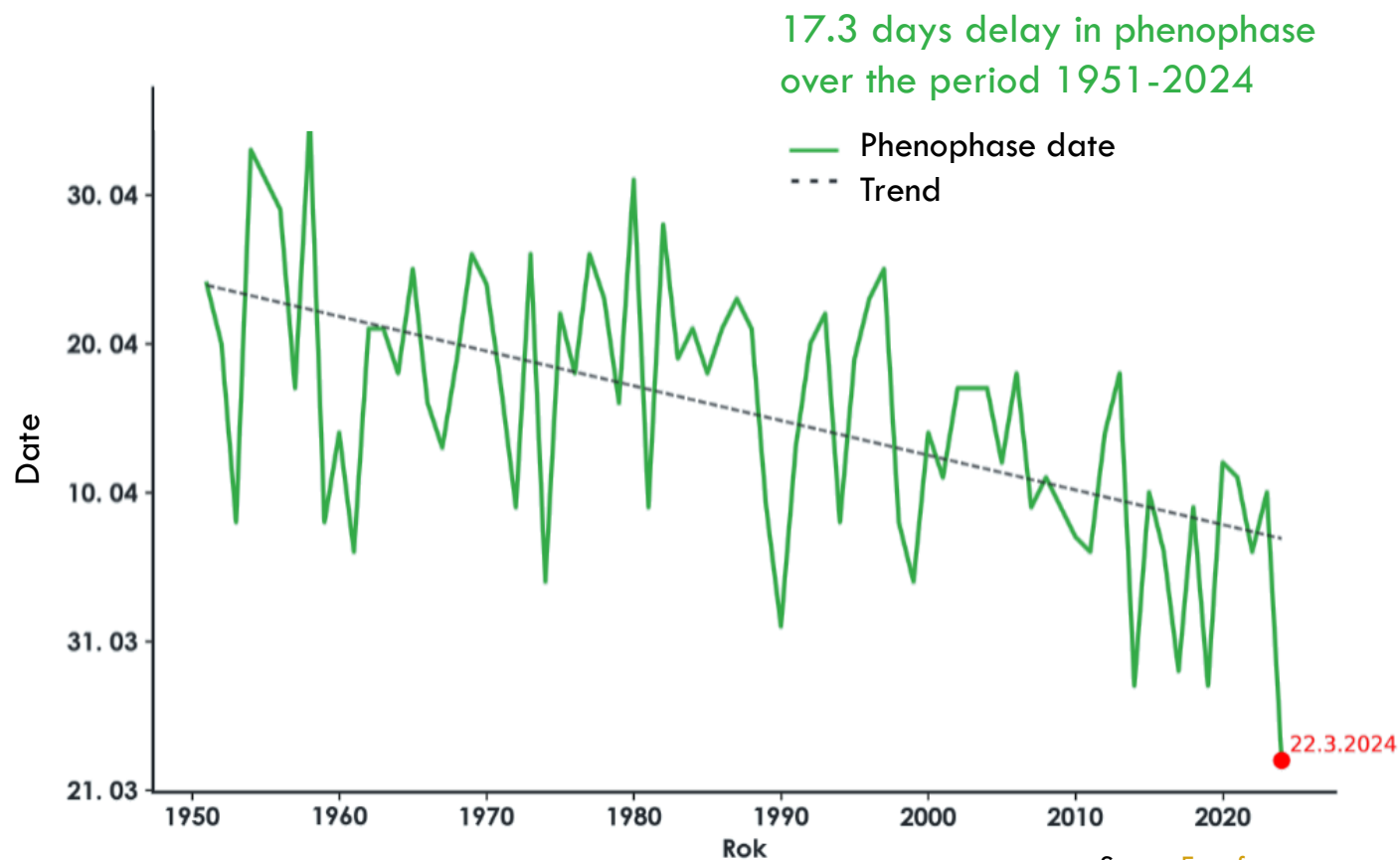
PHENOLOGY TELLS US ABOUT CLIMATE CHANGE

Studies of long-term phenological records have shown that due to climate change, there is an **earlier onset of phenological phases** and a shortening of the duration of individual phenophases (faster change of phenophases).

At the same time, the **growing season is becoming longer**.

Source: [ČHMÚ](#)

Oak (*Quercus robur*): leaf budburst during 1951-2024 in the Czechia (Lanhžhot)



2024 AUTUMN CAMPAIGN

- Greening-down of trees
- September → November / December
- Over 290 school teams from 25 countries – over 5000 students

Belgium, Croatia, Czech Republic, Estonia, Georgia, Germany, Greece, Ireland, Israel, Italy, Kyrgyzstan, Latvia, Lithuania, Malta, Netherlands, Nigeria, North Macedonia, Poland, Romania, Slovakia, Slovenia, Spain, Switzerland, Ukraine, USA

- Cooperation with scientists



CHARLES
UNIVERSITY



UNIVERSITY
OF LATVIA



WHY TO BE INVOLVED

- Learning about nature in nature
- Sharing and cooperation in an international environment
- Source of information for schools projects and scientists



WHAT TO EXPECT

- Activities to learn about your tree
- Newsletter
- Certificate for active schools

All activities are voluntary.
Let us know, how it goes!



2024 Autumn Tree Campaign Has Begun



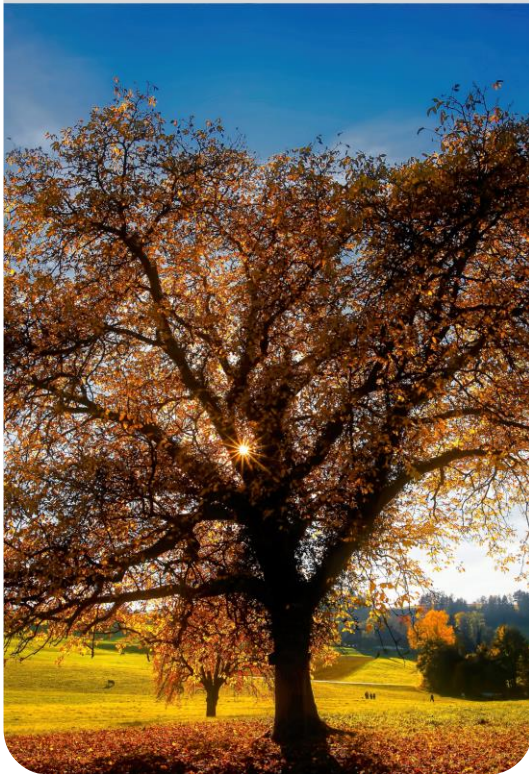
es as they prepare for winter. Share your
al campaign community of 280 school teams from
ountries, and the USA.

ed to start your campaign activities easily and get



GREEN-DOWN ACTIVITIES

**ACTIVITY 1
MY TREE**



**ACTIVITY 2
COLOR CHANGE**



**ACTIVITY 3
GREEN DOWN DATA**



ACTIVITY 1 – MY TREE

Find a suitable tree

- Close
- Low branch – south facing
- Not shaded, fertilised...
- Ideally one of the campaign species (native specie)

Describe the tree and the site

- GPS coordinates, altitude
- Tree species (e.g. *Corylus avellana* for hazel)
- Name the tree (e.g. Hazel 1, Mr. Leafy..)



Sour cherry



Small-leaved lime



Hazel



Penduculate oak



Silver birch



Beech



Fig

ACTIVITY 2 — COLOR CHANGE

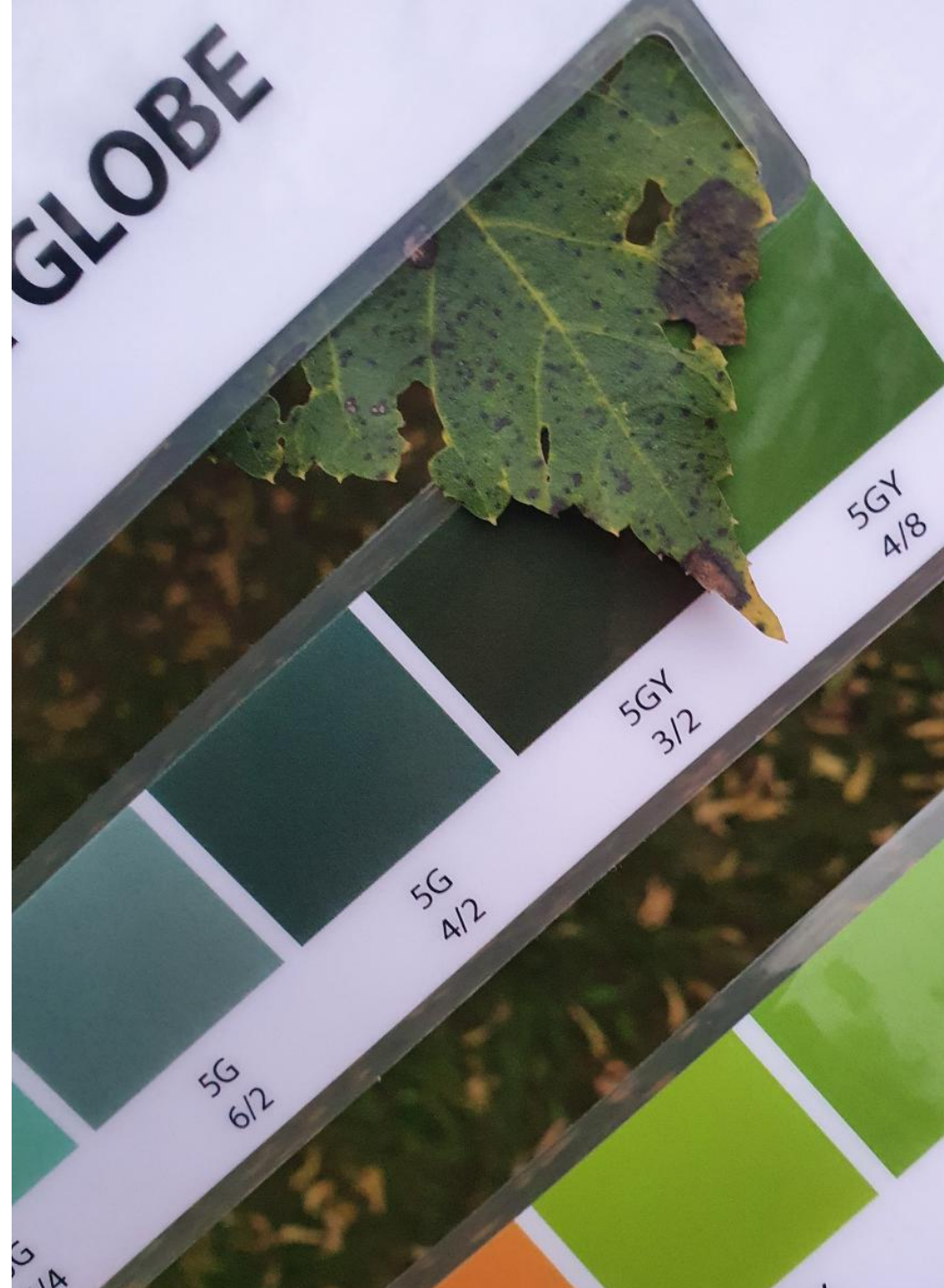
- Mark **4 leaves** at one branch
- Visit the tree **twice per week** until leaves fall down
- Observe color change and falling of leaves



ACTIVITY 2 — COLOR CHANGE

Record data into the data sheet

- The dominant color using the [GLOBE Plant Color Guide](#)
- Snow covered
- Fallen
- Lost



Example of Completed Green-Down Data Sheet

Tree, Shrub, and Grass Green-Down

Date YYYY-MM-DD (year-month-day)	Growing season cycle (1, 2 or 3)	Leaf 1 (Color, fallen, snow covered)	Leaf 2 (Color, fallen, snow covered)	Leaf 3 (Color, fallen, snow covered)	Leaf 4 (Color, fallen, snow covered)	Data submitted to GLOBE
2013-09-30	1	5 G 7/4	5 G 7/4	5 G 7/4	5 G 7/4	<input type="checkbox"/>
2013-10-03	1	5 G 7/4	5 G 7/4	5 G 7/4	2.5 Y 8/6	<input type="checkbox"/>
2013-10-07	1	5 G 7/4	2.5 Y 8/6	5 G 7/4	2.5 Y 8/6	<input type="checkbox"/>
2013-10-11	1	5 G 7/4	2.5 Y 8/6	2.5 Y 8/6	2.5 Y 8/6	<input type="checkbox"/>
2013-10-14	1	5 G 7/4	2.5 Y 8/6	2.5 Y 8/6	FALLEN	<input type="checkbox"/>
2013-10-16	1	2.5 Y 8/6	2.5 Y 8/6	SNOW COVERED	FALLEN	<input type="checkbox"/>

Optional: record also temperature and precipitation

ACTIVITY 3 – MY GREEN-DOWN DATA

1. Upload your green-down data to database on GLOBE website

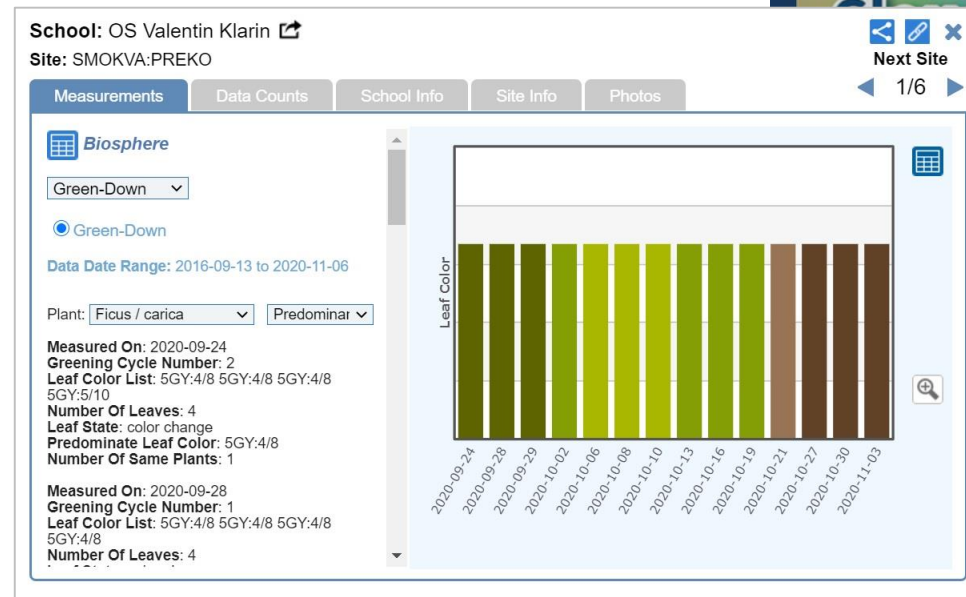
- Login to your **GLOBE account**
- Use data collected during activities 1 and 2
- Training is needed – **changes in e-training on September 27**
- **New** – uploading data using the [GLOBE Observer](#)

2. Try GLOBE Visualization tool

- See the data on world map
- Draw and share a graph with your data

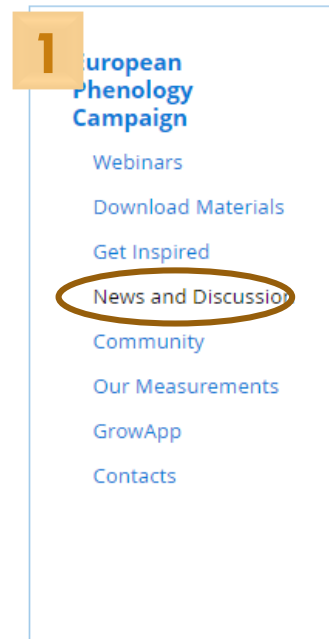
3. Compare your data with

- another school
- your data from previous years



SHARE YOUR RESULTS - DISCUSSION FORUM

- Post your pictures and results, subscribe to get e-mails with news from other schools
- How to do it?
 - Sign in to GLOBE account
 - Choose News and discussion category „2024 Autumn“ (1)
 - ✓ Add New Thread (2)
 - ✓ Add pictures
 - ✓ Publish your post

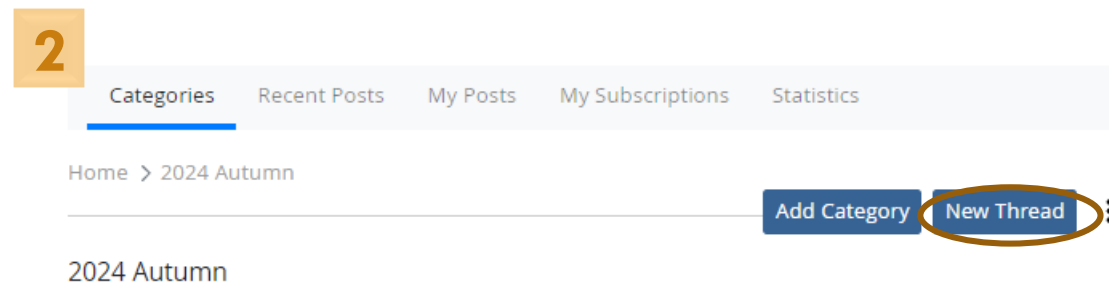
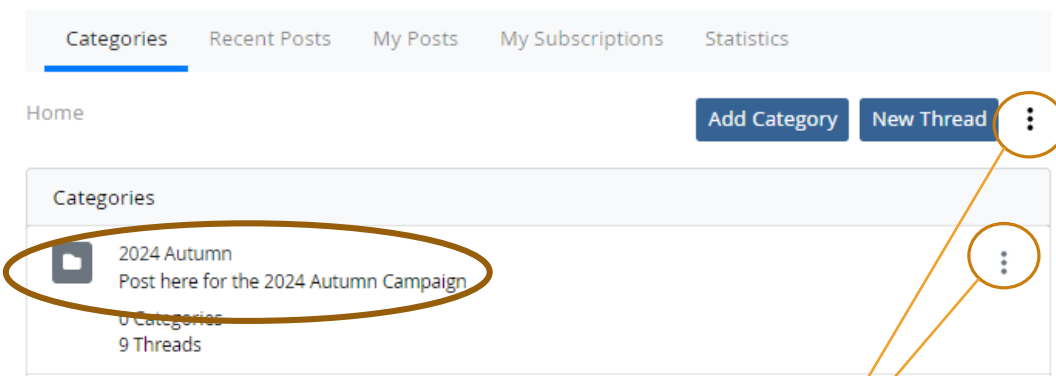


News and Discussion

Here members can share their pictures, results and ideas with other community members. Posts will be automatically sent by email to all subscribers.

Instructions on how to subscribe to the forum and how to post are available [here](#).

 Leave Community



SUBSCRIBE to receive posts by e-mail

SHARE YOUR RESULTS - GROWAPP

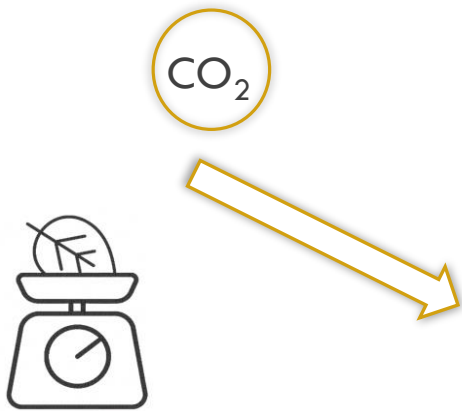
- Simple mobile app
- Time lapse videos from you pictures visible in a map
- Use # to describe tree species and your school



www.growapp.today

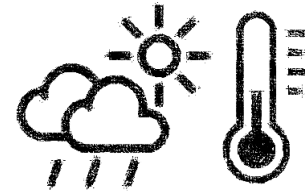
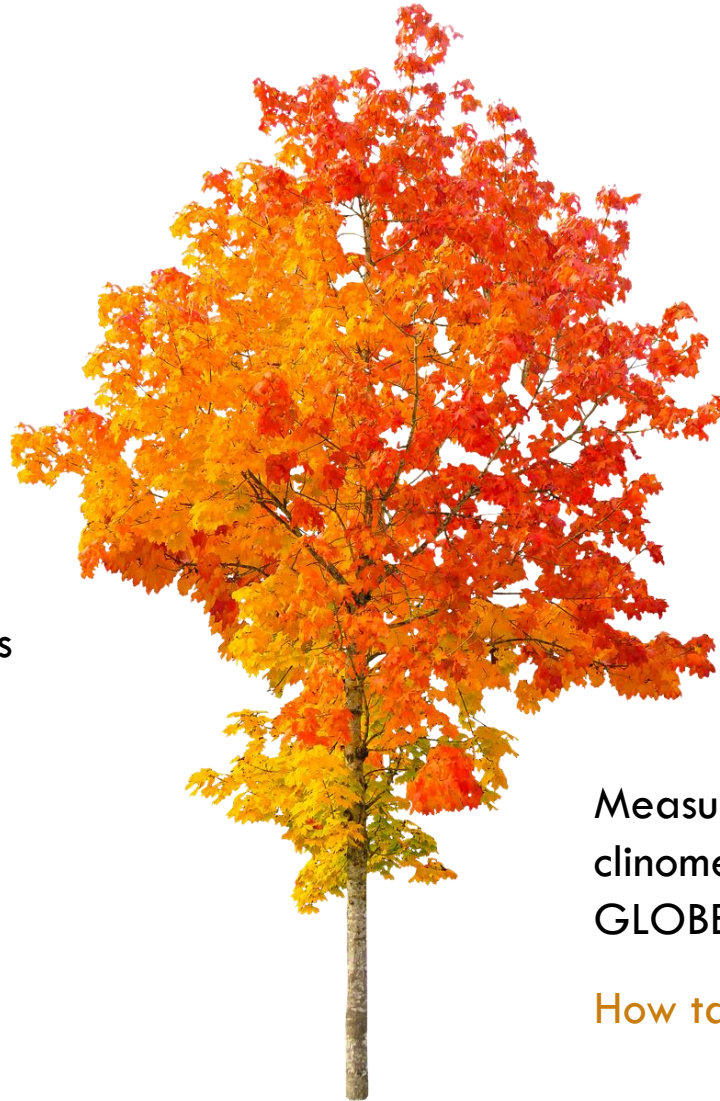
<https://www.globe.gov/web/european-phenology-campaign/overview/growapp>

WHAT OTHER ACTIVITIES CAN YOU TRY?



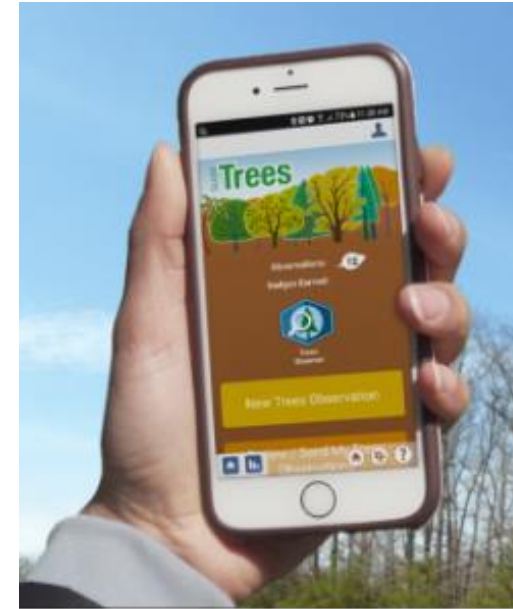
Find out, how much carbon is stored in leaves

How leaves lose weight



Measure tree height with clinometer or using GLOBE Observer tool

How tall is my Tree



European Phenology Campaign

Webinars

Download Materials

Get Inspired

News and Discussion

Community

Our Measurements

GrowApp

Contacts

2023 Spring

- Invitation to upcoming webinars



THE GLOBE PROGRAM

**The Best of GLOBE
Europe & Eurasia**

Showcasing Student Research
and Community Impact

**4 - 5 February
online**

- Recordings of archived webinars
- Trees Around the GLOBE Campaign Webinars

[Campaign website](#)



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European Phenology Campaign - Inspiration from GLOBE Schools

Get inspired by student activities and research projects

Videos

1

One day of Poltava Nature Researchers

Video • 01:02

UK_Poltava video

Meet GLOBE researchers from Poltava School No38, Ukraine. Join them for a visit to their autumn tree.

0

Padlets

2

Great Autumn International Cooperation

Padlet • petra sekulic

School from Croatia, Czech Republic, Switzerland and Ukraine started cooperating within the Phenology Campaign...and they don't stop.

0

Wakelets

wakelet.com

The teams from Ukraine, the Czech Republic and Croatia were connected by the observation of the same tree species - oak. They shared their results via an online noticeboard.

2

A year with trees in Osijek, Croatia

wakelet.com

An online Wakelet collection for team collaboration and sharing information about phenology research was created by the team from OS Ivan Filipovica Osijek, Croatia.

1

Book Creators

1

Autumn Campaign 2022 in OS Rugvica

read.bookcreator.com

Student activities, collaboration with several schools, GrowApp... all in one wonderful online book.

0

Virtual book of autumn tree activities

read.bookcreator.com

The team of Primary school

Presentations

globe

Spring 2021 at Česká Třebová, Czech Republic

globe

In which lessons you can do phenology? Can students enter data? This and a lot more in the presentation by Česká Třebová High School.

2

Autumn leaf art

PDF

Beautiful and creative art pieces made from autumn leaves by students of ICPG 3 San Paolo Perugia, Italy

Carbon

Primary s Slovenia

0

Birch tree

0

What a tree How a tree stores ca

YouTube



30 YEARS OF GLOBE CAMPAIGN

COMPARING GLOBE DATA PAST AND PRESENT

- September 2024 - September 2025
- Take a deep-dive into the last 30 years of GLOBE data. Understand changes emerging in your local ecosystems.
- Aligned with the European Phenology Campaign
- Connected with the [2025 International Virtual Science Symposium \(IVSS\)](https://www.globe.gov/web/30-years-of-globe-campaign/overview)

Details at: <https://www.globe.gov/web/30-years-of-globe-campaign/overview>



TREE REPORTERS

Become tree reporters and [join one of the challenges](#):

Tree Magazine:

- interview your tree and create a page for the "Tree magazine"

Tree TV

- Record your conversation with a tree in a maximum 1-minute long video.

WHEN?

- Submit your interview **by December 31**
- The best videos and magazine pages will be presented at **"The Best of GLOBE Europe & Eurasia"** a virtual event **on 4-5 February 2025.**

JOIN THE CHALLENGE!
TREE REPORTERS
GET TO KNOW YOUR TREE BETTER
SEPTEMBER - DECEMBER

There are four birds' nests in my crown.

I look forward to a winter sleep.

I ❤️ GLOBE

THE GLOBE PROGRAM

COOPERATION WITH NASA

- **Trees Around the GLOBE** Student Research Campaign continues with Year 7 – [see more](#)
- **GLOBE Observer** [blog](#) and observation period
 - Tree height
 - Land cover





THE GLOBE PROGRAM

THANK YOU!

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www.globe.gov/web/european-phenology-campaign

